

**PATENT APPLICATION**



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Yoshio AKIYAMA et al.

On Appeal from Group: 1794

Application No.: 10/521,588

Examiner: M. JACOBSON

Filed: September 6, 2005

Docket No.: 122473

For: BLOW MOLDED ARTICLE

**APPEAL BRIEF TRANSMITTAL**

Commissioner for Patents  
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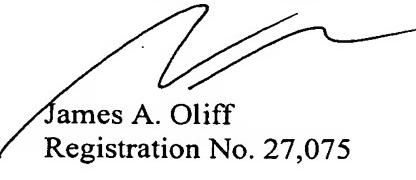
Sir:

Attached is the Brief on Appeal in the above-identified application.

Also attached is Check No. 211964, in the amount of \$540.00 (\$270.00 Small Entity), in payment of the fee due under 37 C.F.R. 41.20(b)(2).

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Respectfully submitted,



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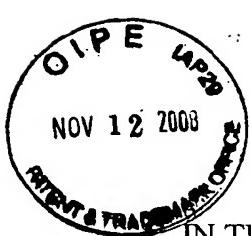
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BRIEF ON APPEAL

Appeal from Group 1794

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I. **REAL PARTY IN INTEREST**

The real party in interest for this appeal and the present application is Yoshino Kogyosho Co., Ltd., by way of an Assignment recorded in the U.S. Patent and Trademark Office at Reel 016730, Frame 0511.

**II. RELATED APPEALS AND INTERFERENCES**

There are no prior or pending appeals, interferences or judicial proceedings, known to Appellant, Appellant's representative, or the Assignee, that may be related to, or that will directly affect or be directly affected by or have a bearing upon, the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 1-3 and 5-12 are on appeal.

Claims 1-3 and 5-12 are pending.

Claims 1-3 and 5-12 are rejected.

Claim 4 is canceled.

**IV. STATUS OF AMENDMENTS**

Claims 1-3 and 5-12 were amended in the February 25, 2008 Amendment, and the amendments were entered as evidenced by the May 29, 2008 Final Office Action. An amendment was not made in response to the May 29, 2008 Final Office Action. Instead, Appellants submitted a Request for Reconsideration on August 20, 2008, which was considered as evidenced by the September 5, 2008 Advisory Action.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The invention of claim 1 is directed to a blow molded article (e.g., container 1, Fig. 1) obtained by a direct-blow molding process and including a bottom portion (e.g., bottom portion 4, Fig. 1), a cylindrical body portion (e.g., body portion 3, Fig. 1) arranged above the bottom portion (4), and a cylindrical mouth portion (e.g., mouth portion 2, Fig. 1) arranged above the body portion (3) (e.g., see paragraph [0042]). The molded article includes at least three pinch-off lines (e.g., pinch-off lines 7, Fig. 2) caused by mold-pieces of a split bottom-mold (e.g., see paragraphs [0042] and [0044]), in a diverging manner from a center of a bottom face (e.g., bottom face 5, Fig. 2) at the bottom portion (4). The pinch-off lines (7) are formed within a circle which is concentric with said bottom face (5) and which has a diameter equal to or less than  $\pi D_p/n$ , wherein  $\pi$  represents a circular constant,  $D_p$  represents an outer diameter of a parison (e.g., parison 11, Figs. 3a-3c), and  $n$  represents the number of the pinch-off lines (7) (e.g., see paragraphs [0016] and [0045]).

Claim 2 depends from claim 1 and is directed to the pinch-off lines (7) being arranged at substantially equal central angles (e.g., see paragraphs [0014]-[015] and [0046]).

Claim 3 depends from claim 2 and is directed to the pinch-off lines (7) comprising four pinch-off lines (7) arranged in a crossed shape (e.g., see paragraph [0044] and Fig. 2).

Claim 6 depends from claim 1 and is directed to the blow molded article (1) having a wall (a wall structuring the body portion 3) in a laminated structure (e.g., see paragraphs [0060] and [0070]).

Claim 12 depends from claim 6 and is directed to the laminated structure being constituted to include, at least, an outer layer (e.g., outer layer 1a), and an inner layer (e.g., inner layer 1c) formed of a synthetic resin having a low compatibility with a synthetic resin forming said outer layer (1a) (see e.g., paragraph [0070]). For instance, as discussed at paragraph [0070], as examples, the outer layer 1a is made of a synthetic resin material, such

as polyethylene, polypropylene and PFT, and the inner layer 1c is made of a synthetic resin material, such as nylon, ethylene-vinylalcohol copolymer and polyethylene terephthalate, which has a low compatibility with the outer layer 1a.

Claims 5 and 7-11 depend directly from claim 6, and incorporate all of the features thereof.

**VI. GROUNDΣ OF REJECTION TO BE REVIEWED ON APPEAL**

The following grounds of rejection are presented for review:

1) Claim 12 is rejected as indefinite under 35 U.S.C. §112, second paragraph;

2) Claims 1-3 and 5 are rejected under 35 U.S.C. §102(b) over U.S. Patent No.

3,663,522 to Butcher; and

3) Claims 6-12 are rejected as having been obvious under 35 U.S.C. §103(a) over Butcher in view of U.S. Patent 6,546,133 to Schmidt et al. (hereinafter "Schmidt").

## **VII. ARGUMENT**

The May 29, 2008 Final Office Action ("Office Action") rejects claim 12 under 35 U.S.C. §112, second paragraph, asserting that the term "low compatibility" is indefinite. Appellants' explanation of the term "low compatibility" in view of Appellants' specification clearly defines the term, thus rendering the term clear and definite.

The Office Action also rejects claims 1-3 and 5 under 35 U.S.C. §102(b) over Butcher and claims 6-12 under 35 U.S.C. §103(a) over Butcher in view of Schmidt. The Office Action asserts that pinch-off lines that are formed within a circle as defined by claim 1 is inherently disclosed by Butcher. Appellants disagree and assert that the explanation provided in the Office Action is flawed.

### **A. Rejection of Claim 12 Under 35 U.S.C. §112, Second Paragraph**

#### **1. The Specification Does Clearly Define The Term "Low Compatibility" As Recited in Claim 12**

Citing *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984), MPEP §2173.05(b) states that the fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. §112, second paragraph. MPEP §2173.05(b) also states that acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification.

Claim 12 recites that that laminated structure is constituted to include, at least, an outer layer, and an inner layer formed of a synthetic resin having a low compatibility with a synthetic resin forming said outer layer. Paragraph [0070] of the specification, for example, states that the outer layer 1a is made of a synthetic resin material, such as polyethylene, polypropylene, and PFT, and the inner layer 1c is made of a synthetic resin material, such as nylon, ethylene-vinylalcohol copolymer and polyethylene terephthalate, which has a low compatibility with the outer layer 1a. Paragraph [0070] also states that the resin material has

a low compatibility with the outer layer 1a "thereby allowing to provide a laminated peelable container."

Therefore, based on Appellants' disclosure, those skilled in the art, who have sufficient knowledge in the materials used to produce the blow molded article, would appreciate the level of the compatibility that is sufficiently low to make the contacting layers easily peelable from each other based on the exemplary materials for the inner and outer layers as discussed in Appellants' specification. Accordingly, in light of clear disclosure in the specification, the term "low compatibility" as recited in claim 12 is definite, and one skilled in the art would understand what is claimed in light of paragraph [0070], for example, of the specification.

**2. The Examiner Has Failed To Explain Why The Scope Of Claim 12 Cannot Be Determined After Appellants' Explanation**

Despite Appellants' arguments presented in the August 20, 2008 Request for Reconsideration ("Request for Reconsideration"), the September 5, 2008 Advisory Action ("Advisory Action") failed to address Appellants' arguments.

MPEP §707.07(f) states that "[w]here there requirements are traversed, ... the examiner should make proper reference thereto in his or her action on the amendment" MPEP §707.07(f) also states that "[w]here the applicant traverses any rejection, the examiner should if he or she repeats the rejection, take note of the applicants' argument and answer the substance of it." The Advisory Action has failed to make proper reference or to answer Appellants' argument presented in the Request for Reconsideration.

At least for these reasons, Appellants respectfully request withdrawal of the rejection or an appropriate answer.

**B. Claims 1-3 and 5 Are Not Anticipated By Butcher**

The Office Action rejects claims 1-3 and 5 under 35 U.S.C. §102(b) over U.S. Patent No. 3,663,522 to Butcher.

**1. Claim 1**

Claim 1 recites, *inter alia*, that the molded article includes at least three pinch-off lines, and that the pinch-off lines are formed within a circle which has a diameter equal to or less than  $\pi D_p/n$ , wherein  $\pi$  represents a circular constant,  $D_p$  represents an outer diameter of a parison, and  $n$  represents the number of the pinch-off lines. Page 4, paragraph 9 of the Office Action asserts that the claimed equation is inherently disclosed, by attempting to explain how Butcher inherently satisfies the equation. Appellants disagree and assert that pinch-off lines that are formed within a circle as defined by claim 1 are not inherently disclosed by Butcher, and hindsight cannot be used to redesign Butcher. Moreover, the inherency arguments provided in the Office Action are technically incorrect.

**a. Pinch-Off Lines That Are Formed Within A Circle Defined By Claim 1 Is Not Inherently Disclosed By Butcher**

MPEP §2112 states that the Patent Office must provide rationale or evidence tending to show inherency. Citing *In re Robertson*, 169 F.3d 743, 745, 49 USPQd 1949, 150-51 (Fed. Cir 1990), MPEP §2112 also states, "[i]nherency...may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient" (emphasis added). Additionally, citing *Ex Parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990), MPEP §2112 states, "[i]n relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teaching of the applied prior art" (emphasis in original). Applicant respectfully submits that the Patent Office has not met its burden to show the inherency.

To show the inherency, page 5 of the Office Action asserts that "[h]alf of the circumference pushed in to form half of the pinch off line" and "[s]ince the circumference of the parison was pinched off from two directions, the new maximum diameter of the parison produced would have a value of half of the circumference of the parison." Then, the Office

Action conclusively states, without any intermediate explanations, "[f]or n number of pinch off lines, the diameter of the pinched-off parison would have a circumference equal to  $1/n C_p$  which would therefore translate into  $D_{new} = 1/n \pi D_p$ " (where  $D_{new}$  is a diameter of a circumference of pinch-off lines, n is a number of the pinch-off lines, and  $D_p$  is a diameter of the parison).

Appellants disagree with these arguments because the Office Action's use of two pinch-off lines in the example given is merely an arbitrary number not given by Butcher. Butcher discloses three pinch-off lines as shown in Fig. 2 of Butcher, but does not disclose a parison with two pinch-off lines. In addition, the Office Action arbitrarily states, without any explanation, that the new maximum diameter of the parison produced would have a value of half of the circumference of the parison because the circumference of the parison was pinched off from two directions. The Office Action's inherency arguments are not based on the disclosure of Butcher and thus improper.

In addition, the Office Action does not reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teaching of the applied prior art. That is, as discussed above, Butcher only discloses three pinch-off lines. The Office Action improperly replaces the number "3" with "2" in the alleged equation and then with an arbitrary number "n," and asserts that the equation is applicable in any number of the pinch-off lines. Such numbers "2" and "n" are not disclosed by Butcher.

In addition, as discussed in detail below, the number "2" in the alleged equation does not represent the number of pinch-off lines. Therefore, replacing the number with "n," which the Office Action alleges as the number of the pinch-off lines, is improper. Accordingly, the Office Action has not established the proper inherency standard.

**b. Hindsight Cannot Be Used To Redesign Butcher**

The Office Action's alleged equation is a product based on hindsight reasoning. That is, the Office Action clearly states that the circumference of the pinch-off lines is pushed to form half of the pinch off line (i.e., the length of the pinch off lines is reduced to half of its original length). Then, the Office Action asserts that the circumference of the pinch-off lines  $D_{\text{new}}$  is a half of the original diameter of the parison. As discussed above, Butcher does not disclose two pinch-off lines. Thus, the Office Action is clearly relying on a circumstance set up by itself, not from the teaching of Butcher, to establish the inherency argument. This is not the standard for establishing a proper inherency argument.

**c. The Inherency Argument Set Forth In The Final Rejection Is Technically Incorrect**

The Office Action provides an equation  $C_{\text{new}} = \pi D_{\text{new}}$  (where  $C_{\text{new}}$  is a circumference of pinch-off lines, and  $D_{\text{new}}$  is a maximum diameter of the parison). Appellants agree that, using basic geometry,  $C = \pi D$ . The Office Action then provides the new  $D_{\text{new}} = 1/2 \pi D_p$ , which Appellants assert is not supported by Butcher and does not necessarily flow from Butcher. This number "1/2" in the new equation allegedly occurs because, according to the Office Action, the new maximum diameter of the parison produced would have a value of half of the circumference of the parison. The Office Action's statements are inaccurate in the following points.

First, the Office Action's statements are contradictory and thus unclear. Page 5 of the Office Action states "[h]alf of the circumference pushed in to form half of pinch off line" (emphasis added). Then, the Office Action states "the new maximum diameter of the parison...would have a value of half of the circumference of the parison" (emphasis added). One having ordinary skill in the art would understand that, based on the above basis geometric equation  $C = \pi D$ , if the circumference  $C$  is reduced to half of its original length, the

new diameter D should have half of its original diameter. Therefore, it is unclear from the Office Action's statements what is being reduced by/to half. In addition, if the circumference is reduced by half, then one having ordinary skill in the art would recognize that the Office Action's equation  $D_{\text{new}} = 1/2 C_p$  is technically wrong.

Second, even if the diameter is reduced to half of the circumference, the Office Action's statements are still inaccurate as discussed follow.

The Office Action first defines that the original circumference of the pinch-off lines as:

$$C_p = \pi D_p \quad (1)$$

where  $C_p$  is the original circumference of the parison, and  $D_p$  is a diameter of the parison.

Then, based on the Office Action's statement that "[s]ince the circumference of the parison was pinched off from two directions, the new maximum diameter of the parison produced would have a value of half of the circumference of the parison" (emphasis added), the Office Action provides:

$$D_{\text{new}} = 1/2 C_p \quad (2)$$

Then, from Equation (1), the Office Action translates Equation (2) to:

$$D_{\text{new}} = 1/2 \pi D_p \quad (3)$$

Based on Equations (1) and (3), the Office Action produces:

$$D_{\text{new}} = 1/n \pi D_p \quad (4)$$

where n allegedly represents the number of pinch-off lines. The Office Action alleges that Equation (4) correspond to the equation as recited in claim 1. Appellants respectfully disagree with these assertions.

The Office Action fails to explain why, based on Butcher's disclosure, the diameter of parison must be necessarily reduced to half of the circumference of the parison. Without such explanation, the new diameter  $D_{\text{new}}$  cannot be merely represented by half of the circumference

(i.e.,  $1/2 C_p$ ) as defined by Equation (2). The Office Action has not shown that such representation is true based on the teaching of Butcher.

In addition, those skilled in the art would recognize that the circumference of the parison is not necessarily proportionally reduced based on the number of directions in which the circumference of the parison was pinched off. One having ordinary skill would appreciate that depending on various factors, such as the shape and/or length of the jaws, the material of the parison, and the forces applied to the parison by the jaws to pinch off, the diameter of the pinch-off lines would vary. In other words, the diameter of the pinched-off parison does not always become half of the original diameter of the parison. The Office Action has not shown that the circumference of the parison is proportionally reduced in such manner. For instance, the Office Action has not shown that if the circumference of the pinch-off lines are pushed in, for example, ten different directions, for example, the new diameter of the circumference becomes one-tenth.

Moreover, the Office Action improperly translates, based on Equations (1) and (3),  $1/2 \pi D_p$  to  $1/n \pi D_p$ . However, based on Equation (2), the number "1/2" merely represents half length of the circumference. Thus, the number "n" in Equation (4) still represents the number of divisions of the circumference length of the pinch-off lines, not the number of pinch-off lines, as recited in claim 1.

As such, Equation (4) does not correspond to  $1/n \pi D_p$ , where n represents the number of pinch-off lines, as recited in claim 1.

Furthermore, the Advisory Action asserts that Appellants have not shown evidence to show that the applied reference did not teach or suggest the equation recited in claim 1, and have not shown evidence that the Office Action's alleged equation was mathematically wrong. However, the August 20, 2008 Request for Reconsideration and the above discussion

point out the above-discussed flawed by the Office Action. Therefore, the Appellants have properly shown such evidence.

At least for these reasons, Appellants respectfully submit that the rejection of claim 1 is based on an improper standard. As discussed above, Butcher does not anticipate the features of claim 1. Thus, claim 1 is patentable over Butcher.

**2. Claims 2, 3 and 5**

Claims 2, 3 and 5 are allowable at least for their dependence on claim 1, as well as for the additional features they recite.

**a. The Office Action Fails To Show That The Circle Defined By Claim 1 Applies To Four Pinch-Off Lines As Recited In Claim 3**

For example, claim 3 recites that the pinch-off lines comprise four pinch-off lines arranged in a cross shape. Butcher never discusses four pinch-off lines. In addition, the Office Action has not properly shown that Butcher satisfies that the Office Action's alleged Equation  $D_{\text{new}} = 1/n \pi D_p$  is true when the number of pinch-off lines is four lines.

**C. Claims 6-12 Would Not Have Been Obvious Over Butcher in view of Schmidt**

Claims 6-12 are rejected under 35 U.S.C. §103(a) over Butcher in view of Schmidt. However, as discussed above, Butcher does not anticipate the subject matter of claim 1. Schmidt does not overcome the deficiencies of Butcher with respect to claim 1. Therefore, claims 6-12 are allowable at least for their dependence on claim 1, as well as for the additional features they recite.

**VIII. CONCLUSION**

For all of the reasons discussed above, it is respectfully submitted that the rejections are in error and that claims 1-3 and 5-12 are in condition for allowance. For all of the above reasons, Appellants respectfully request this Honorable Board to reverse the rejections of claims 1-3 and 5-12.

Respectfully submitted,



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APPENDIX A - CLAIMS APPENDIX

## CLAIMS INVOLVED IN THE APPEAL:

1. A blow molded article obtained by a direct-blow molding process and including a bottom portion, a cylindrical body portion arranged above the bottom portion, and a cylindrical mouth portion arranged above the body portion,

wherein said molded article includes at least three pinch-off lines caused by mold-pieces of a split bottom-mold, in a diverging manner from a center of a bottom face at said bottom portion, and

wherein said pinch-off lines are formed within a circle which is concentric with said bottom face and which has a diameter equal to or less than  $\pi D_p/n$ , wherein  $\pi$  represents a circular constant,  $D_p$  represents an outer diameter of a parison, and  $n$  represents the number of the pinch-off lines.

2. The blow molded article according to claim 1, wherein said pinch-off lines are arranged at substantially equal central angles.

3. The blow molded article according to claim 2, wherein said pinch-off lines comprise four pinch-off lines arranged in a crossed shape.

5. The blow molded article according to claim 1 wherein said blow molded article is molded into a container by biaxial-stretching blow molding.

6. The blow molded article according to claim 1 wherein said blow molded article has a wall in a laminated structure.

7. The blow molded article according to claim 6, wherein said laminated structure is constituted to include, at least, a layer using a polyethylene terephthalate-based resin, and a layer using a polyethylene naphthalate-based resin.

8. The blow molded article according to claim 6, wherein said laminated structure is constituted to include, at least, an outer layer and an inner layer both using a polyethylene terephthalate-based resin, and an intermediate layer using a gas-barrier resin.

9. The blow molded article according to claim 6, wherein said laminated structure is constituted to include, at least, an outer layer using polyethylene or polypropylene, and an inner layer using ethylene-vinylalcohol copolymer or polyethylene terephthalate-based resin.

10. The blow molded article according to claim 6, wherein said laminated structure is constituted to include, at least, an outer layer using polyethylene or polypropylene, an intermediate layer using a gas-barrier resin, and an inner layer using polyethylene or polypropylene.

11. The blow molded article according to claim 6, wherein said laminated structure is constituted to include, at least, an outer layer and an inner layer both using a virgin resin material, and an intermediate layer using a reclaimed resin material.

12. The blow molded article according to claim 6, wherein said laminated structure is constituted to include, at least, an outer layer, and an inner layer formed of a synthetic resin having a low compatibility with a synthetic resin forming said outer layer.

**APPENDIX B - EVIDENCE APPENDIX**

NONE

**APPENDIX C - RELATED PROCEEDINGS APPENDIX**

NONE